Документ подписан простой электронной подписью

Информация о владельце:

ФИО: Максимов Алексей Борисович

Должность: директор департамента по образовательной политике

Дата подписания: 31.08.2023 14:56:36 Уникальный программный ключ:

8db180d1a3f02ac9e60521a5672742735c18b1d6

### MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

Federal State Autonomous Educational Institution of Higher Education
"Moscow Polytechnic University"

(Moscow Poly)

APPROVE

Vice-President

for International Affairs
/Yu.D. Davydova/

05 2022

Dean,

Faculty of Economics and
Management

/A.V. Nazarenko/

\_2022

### WORKING PROGRAM OF THE DISCIPLINE

"Organization and Conduct of Research in Management"

Field of study 38.03.02 Management

Educational program (profile)
"Business Process Management"

Qualification (degree) Bachelor

Form of study
Part-time

Moscow 2022

### 1. The goals of mastering the discipline

The main goals of mastering the discipline "Organization and conduct of research in management" include the formation of students' theoretical knowledge in the field of the current state and the implementation of scientific research; the formation of students' understanding of the directions for the development of scientific research in the field of their educational program orientation.

To the main tasksmastering the discipline "Organization and conduct of research in management" should include:

- -familiarization of students with the specifics of scientific research, the methodology for performing research work,
  - -preparation of research reports,
  - -planning and conducting economic experiments,
- -performance of approximation of experimental data and analysis of the obtained results.

### 2. The place of the discipline in the structure of the bachelor's program

The discipline "Organization and conduct of research in management" refers to a part of the disciplines formed by participants in educational relations (B1.2) of the bachelor's degree program.

The discipline "Organization and conduct of research in management" is interconnected logically and content-methodologically with the following disciplines and practices of the EP:

- Project activity
- Fundamentals of Management
- Process management
- Law basics

## 3. The list of planned learning outcomes for the discipline (module), correlated with the planned results of mastering the educational program.

As a result of mastering the discipline, students form the following competence and the following learning outcomes should be achieved as a stage in the formation of the relevant competence:

Competency code	As a result of mastering the educational program, the student must have	List of planned learning outcomes by discipline
PC-5	Capable of gathering information about business problems and identifying business opportunities in	Know: basics of document formation, theoretical foundations for building business structures; the nature of the conflict and methods of its resolution;  Be able to:to form and improve documentation, taking into account the observance of the rights and

the organization	interests of shareholders and investors.  Own: methods of generating documentation necessary for the creation of new business structures, ways to resolve conflicts
------------------	---

### 4. Structure and content of the discipline

### **Part-time education:**

The total labor intensity of the discipline is 4 credit units, i.e. 144 academic hours (of which 108 hours are independent work of students).

Sections of the discipline "Organization and conduct of research in management" are studied in the third year.

**Sixth semester:** lectures - 18 hours, seminars - 18 hours, the form of control - an exam.

The structure and content of the discipline "Organization and conduct of research in management" in terms of terms and types of work are reflected in the appendix.

The content of the sections of the discipline

Topic 1 Fundamentals of the study of management systems in management

Topic 2 Main characteristics of research in management

Topic 3 Research methodology in management

**Topic 4 Approaches to research in management** 

**Topic 5 Organization of the study** 

**Topic 6 Information support of research in management** 

**Topic 7 Types of research** 

Topic 8 Testing as a research method

Topic 9 Scientific and practical significance of control systems research

### 5. Educational technologies

The methodology for teaching the discipline "Organization and conduct of research in management" and the implementation of a competency-based approach in the presentation and perception of the material provides for the use of the following active and interactive forms of conducting group, individual, classroom classes in combination with extracurricular work in order to form and develop the professional skills of students:

- lectures;
- preparation for seminars;
- preparation, presentation and discussion of reports at seminars;

- organization and conduct of current control of students' knowledge in the form of testing.

The proportion of classes conducted in interactive forms is determined by the main goal of the educational program, the peculiarity of the contingent of students and the content of the discipline"Organization and conduct of research in management" and in general in the discipline is at least 50% of the classroom.

# 6. Evaluation tools for current monitoring of progress, intermediate certification based on the results of mastering the discipline and educational and methodological support for independent work of students

In the learning process, the following assessment forms of independent work of students, assessment tools for monitoring progress and intermediate assessments are used:

Evaluative means of monitoring progress include control questions and tasks in the form of blank testing, participation in a business game, and presentation of a report.

When performing current control, it is possible to use test material. Samples of control questions and tasks for conducting current control are given in the appendix. When implementing the undergraduate program, the organization has the right to use e-learning and distance learning technologies. All materials are posted in the LMS of the Moscow Poly (https://online.mospolytech.ru/course/view.php?id=10966).

When teaching people with disabilities, e-learning and distance learning technologies should provide for the possibility of receiving and transmitting information in forms accessible to them.

Samples of questions and tasks for conducting current control are given in the appendix.

## 6.1. Fund of assessment tools for conducting intermediate certification of students in the discipline (module).

## 6.1.1. A list of competencies indicating the stages of their formation in the process of mastering the educational program.

As a result of mastering the discipline (module), the following competence is formed:

Competency code	As a result of mastering the educational program, the student must have					
PC-5	Capable of gathering information about business problems and identifying business opportunities in the organization					

In the process of mastering the educational program, this competence, including their individual components, is formed in stages during the development of disciplines (modules), practices by students in accordance with the curriculum and calendar schedule of the educational process.

# 6.1.2. Description of indicators and criteria for assessing competencies formed on the basis of the results of mastering the discipline (module), description of assessment scales

An indicator of competency assessment at various stages of their formation is the achievement by students of the planned learning outcomes in the discipline (module).

PC-5 -Capable of gathering information about business problems and identifying business opportunities in the organization

	Evaluation criteria								
Index	2	3	four	5					
know: - the main trends in the development of small forms of entrepreneurship; use.	the main trends in demonstrates the complete absence or incompall forms of insufficient compliance of the demonstrates the demonstrates the complete absence or incompatitive preneurship; compliance of the following the demonstrates the demonstrates the complete absence or incompliance of the demonstrates the demonstrates the complete absence or incompliance of the demonstrates the demonstrates the complete absence or incomplete absence		The student demonstrates partial compliance with the following knowledge: the basics of business processes and business communications, but minor errors, inaccuracies, and difficulties in analytical operations are allowed.	The student demonstrates full compliance with the following knowledge: the basics of business processes and business communications. Freely operates with acquired knowledge.					
be able to: - collect, summarize and analyze the necessary economic information, including the results of the latest research by domestic and foreign economists on the problems of creating and managing a small business;	The student does not know how or insufficiently knows how to establish effective relationships between participants in business processes and manage them.	The student demonstrates incomplete compliance with the following skills: is able to establish effective relationships between participants in business processes and manage them. Significant mistakes are made, lack of skills is manifested, for a number of	The student demonstrates partial compliance with the following skills: he is able to establish effective relationships between participants in business processes and manage them, but minor errors, inaccuracies, difficulties in analytical operations,	The student demonstrates full compliance with the following skills: he is able to establish effective relationships between participants in business processes and manage them. Freely operates with acquired skills, applies them in situations of					

		indicators, the student experiences significant difficulties in operating with skills when transferring them to new situations.	transferring skills to new, non-standard situations are allowed.	increased complexity.
own: - categorical and lexical apparatus of economic sciences at the level of knowledge and free use	The student does not own or insufficiently owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use.	The student partially owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use. The learner experiences significant difficulties in applying skills in new situations.	The student owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use, but minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations are allowed.	The student fully owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use, freely applies the acquired skills in situations of increased complexity.

Scales for assessing the results of intermediate certification and their description:

### Form of intermediate certification: exam.

Intermediate certification of students in the form of an exam is carried out based on the results of all types of educational work provided for by the curriculum for a given discipline (module), while taking into account the results of current monitoring of progress during the semester. The assessment of the degree of achievement by students of the planned learning outcomes in the discipline (module) is carried out by the teacher conducting classes in the discipline (module) by the method of expert assessment. Based on the results of the intermediate attestation for the discipline (module), the mark "excellent", "good", "satisfactory" or "unsatisfactory" is given.

Only students who have completed all types of academic work provided for by the work program in the discipline "Organization and conduct of research in management" (passed intermediate control) are allowed to intermediate certification

\ <u>I</u>	, , , , , , , , , , , , , , , , , , , ,
Evaluation scale	Description
Excellent	All types of educational work provided for by the curriculum were completed. The student demonstrates the correspondence of knowledge, skills and abilities given in the tables of indicators, operates with the acquired knowledge, skills, skills, applies them in situations of increased complexity. In this case, minor errors, inaccuracies, difficulties in analytical operations, transferring knowledge and skills to new, non-standard situations can be made.
Good	All types of educational work provided for by the curriculum were

	completed. The student demonstrates incomplete, correct correspondence of knowledge, skills, and abilities given in the tables of indicators, or if 2-3 minor errors were made at the same time.
Satisfactorily	All types of educational work provided for by the curriculum were completed. The student demonstrates the conformity of knowledge, which covers the main, most important part of the material, but at the same time one significant error or inaccuracy was made.
unsatisfactory	One or more types of educational work provided for by the curriculum have not been completed. The student demonstrates incomplete correspondence of knowledge, skills and abilities given in the tables of indicators, significant errors are made, the lack of knowledge, skills and abilities is manifested in a number of indicators, the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations.

The evaluation funds are presented in the annex to the work program.

## 7. Educational, methodological and information support of the discipline "Organization and conduct of research in management"

### a) basic literature:

- one. Gorelov, N. A. Methodology of scientific research: textbook and workshop for universities / N. A. Gorelov, D. V. Kruglov, O. N. Korableva. 2nd ed., revised. and additional Moscow: Yurayt Publishing House, 2022. 365 p. (Higher education). ISBN 978-5-534-03635-0. Text: electronic // Educational platform Urayt [website]. URL: https://urait.ru/bcode/489442 (date of access: 09/06/2022).
- 2. Roy, O. M. Methodology of scientific research in economics and management: a textbook for universities / O. M. Roy. 2nd ed., revised. and additional Moscow: Yurayt Publishing House, 2022. 209 p. (Higher education). ISBN 978-5-534-14167-2. Text: electronic // Educational platform Urayt [website]. URL: https://urait.ru/bcode/492536

### b) additional literature:

- 3. Antonov, G.D. Organizational project management: Uch. / G.D. Antonov, O.P. Ivanova, V.M. Tumin. M.: Infra-M, 2018. 64 p.
- four. Korotkov, E. M. Research of control systems: textbook and workshop for universities / E. M. Korotkov. 3rd ed., revised. and additional Moscow: Yurayt Publishing House, 2022. 226 p. (Higher education). ISBN 978-5-9916-7647-2. Text: electronic // Educational platform Urayt [website]. URL: https://urait.ru/bcode/489085
- 5. Kupriyanov, Yu. V. Models and methods for diagnosing the state of business systems: a textbook for universities / Yu. V. Kupriyanov, E. A. Kutlunin. 2nd ed., corrected. and additional Moscow: Yurayt Publishing House, 2022. 128 p. (Higher education). ISBN 978-5-534-08500-6. Text: electronic // Educational platform Urayt [website]. URL: https://urait.ru/bcode/493733

The possibility of using e-learning, distance learning technologies is provided. All materials are placed in the LMS of the Moscow Poly. (https://online.mospolytech.ru/course/view.php?id=10966)

### eight.Logistics support of discipline.

Audience for lectures and seminars of the general fund. Training tables with benches, classroom board, portable multimedia complex (projector, projection screen, laptop). Teacher's workplace: table, chair.

### 9. Guidelines for students when working on lecture notes during the lecture

Lecture - a systematic, consistent, monologue presentation by the teacher of educational material, as a rule, of a theoretical nature. When preparing a lecture, the teacher is guided by the working program of the discipline. In the course of lectures, it is recommended to take notes, which will later allow you to recall the studied educational material, supplement the content during independent work with literature, and prepare for the exam.

You should also pay attention to categories, formulations that reveal the content of certain phenomena and processes, scientific conclusions and practical recommendations, positive experience in oratory. It is advisable to leave fields in the working notes on which to make notes from the recommended literature, supplementing the material of the lecture heard, as well as emphasizing the particular importance of certain theoretical positions.

Lecture conclusions summarize the teacher's reflections on educational issues. The teacher provides a list of used and recommended sources for studying a particular topic. At the end of the lecture, students have the opportunity to ask questions to the teacher on the topic of the lecture. When lecturing on the discipline, electronic multimedia presentations can be used.

### Guidelines for students when working at the seminar

Seminars are implemented in accordance with the working curriculum with consistent study of the topics of the discipline. In preparation for the seminars, the student is recommended to study the basic literature, get acquainted with additional literature, new publications in periodicals: magazines, newspapers, etc. In this case, the recommendations of the teacher and the requirements of the curriculum should be taken into account. It is also recommended to refine your lecture notes by making appropriate entries in it from the literature recommended by the teacher and provided by the curriculum. Abstracts should be prepared for presentations on all educational issues submitted to the seminar.

Since the student's activity in seminars is the subject of monitoring his progress in mastering the course, preparation for seminars requires a responsible attitude. In interactive classes, students should be active.

### Guidelines for students on the organization of independent work

Independent work of students is aimed at independent study of a separate topic of the academic discipline. Independent work is mandatory for each student, its volume is determined by the curriculum. During independent work, the student interacts with the recommended materials with the participation of the teacher in the form of consultations. To perform independent work, methodological support is provided. The electronic library system (electronic library) of the university provides the possibility of individual access for each student from any point where there is access to the Internet.

## 10.Methodological recommendations for the teacher (Guidelines for making presentations)

A presentation (from the English word - presentation) is a set of color slide pictures on a specific topic, which is stored in a special format file with the PP extension. The term "presentation" (sometimes called "slide film") is associated primarily with the information and advertising functions of pictures that are designed for a certain category of viewers (users).

Multimedia computer presentation is:

- dynamic synthesis of text, image, sound;
- the most modern software interface technologies;
- interactive contact of the speaker with the demonstration material;
- mobility and compactness of information carriers and equipment;
- ability to update, supplement and adapt information;
- low cost.

Rules for the design of computer presentations

General Design Rules

Many designers argue that there are no laws and rules in design. There are tips, tricks, tips. Design, like any kind of creativity, art, like any way of some people to communicate with others, like language, like thought, will bypass any rules and laws.

However, there are certain recommendations that should be followed, at least for novice designers, until they feel the strength and confidence to create their own rules and recommendations.

Font design rules:

- Serif fonts are easier to read than sans-serif fonts;
- Capital letters are not recommended for body text.

- Font contrast can be created through: font size, font weight, style, shape, direction, and color.
  - Rules for choosing colors.
  - The color scheme should consist of no more than two or three colors.
  - There are incompatible color combinations.
  - Black color has a negative (gloomy) connotation.
  - White text on a black background is hard to read (inversion is hard to read).

Presentation design guidelines

In order for the presentation to be well perceived by the audience and not cause negative emotions (subconscious or completely conscious), it is necessary to follow the rules for its design.

The presentation involves a combination of information of various types: text, graphics, musical and sound effects, animation and video clips. Therefore, it is necessary to take into account the specifics of combining fragments of information of various types. In addition, the design and demonstration of each of the listed types of information is also subject to certain rules. So, for example, for textual information, the choice of font is important, for graphic information - brightness and color saturation, for their best joint perception, optimal relative position on the slide is necessary.

Consider recommendations for the design and presentation of various types of materials on the screen.

Formatting text information:

- font size: 24-54 pt (headline), 18-36 pt (plain text);
- font color and background color should contrast (the text should be well read), but not hurt the eyes;
- font type: smooth sans-serif font for body text (Arial, Tahoma, Verdana), decorative font can be used for heading if it is legible;
- italics, underlining, bold, capital letters are recommended to be used only for semantic highlighting of a text fragment.

Formatting graphic information:

- drawings, photographs, diagrams are designed to supplement textual information or convey it in a more visual form;
- it is desirable to avoid drawings in the presentation that do not carry a semantic load if they are not part of the style design;
- the color of graphic images should not contrast sharply with the overall style of the slide;
  - illustrations are recommended to be accompanied by explanatory text;
- if a graphic image is used as a background, then the text on this background should be well readable.

The content and location of information blocks on the slide:

- there should not be too many information blocks (3-6);
- the recommended size of one information block is no more than 1/2 of the slide size;
- it is desirable to have on the page blocks with different types of information (text, graphs, diagrams, tables, figures) that complement each other;
  - keywords in the information block must be highlighted;
- information blocks should be placed horizontally, blocks related in meaning from left to right;
  - the most important information should be placed in the center of the slide;
- the logic of presenting information on slides and in the presentation should correspond to the logic of its presentation.

In addition to the correct arrangement of text blocks, one must not forget about their content - the text. In no case should it contain spelling errors. You should also take into account the general rules for formatting the text.

After creating a presentation and its design, you need to rehearse its presentation and your performance, check how the presentation will look like as a whole (on a computer screen or projection screen), how quickly and adequately it is perceived from different audience locations, under different lighting conditions, noise accompaniment, in an environment as close as possible to the real conditions of the performance.

The work program was compiled on the basis of the Federal State Educational Standard of Higher Education in the direction of training bachelors on March 38, 02 "Management", approved by order of the Ministry of Education and Science of the Russian Federation of August 12, 2020 No. 970 (Registered in the Ministry of Justice of Russia on August 25, 2020 No. 59449).

The program was made by:

Art. teacher of the department "Management"

/ Koshel I.S. /

The program was approved at a meeting of the department "Management" August 29, 2022, Protocol No. 1

Head of the Department "Management" k. e. PhD, Associate Professor

/ Alenina E.E. /

# Structure and content of the discipline "Organization and conduct of research in management" in the direction of preparation 38.03.02 "Management" (bachelor) educational program "Business Process Management"

### **Part-time education**

Chapter		A week semester	Types of educational work, including independent student work, and labor intensity in hours				Types of independent work students				Forms of attestatio			
		A week semester	L	F/N	Lab	SRS	DA C	K.R	K.P.	K/ R	Т	DC	Е	Z
Topic 1 Fundamentals of the study of management systems in management		1-2	2	2		ten						+		
Topic 2 Main characteristics of research in management		3-4	2	2		ten						+		
Topic 3 Research methodology in management	6	5-6	2	2		ten								
Topic 4 Approaches to research in management		7-8	2	2		ten						+		
Topic 5 Organization of the study	6	9-10	2	2		ten						+		
Topic 6 Information support of research in management	6	11-12	2	2		ten						+		
Topic 7 Types of research	6	13-14	2	2		ten						+		
Topic 8 Testing as a research method	6	15-16	2	2		ten						+		
Topic 9 Scientific and practical significance of control systems research		17-18	2	2		ten								
Appraisal Form												one	E	
Total hours per discipline			eight een	eigh teen		90								

### MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

### FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER EDUCATION

## "MOSCOW POLYTECHNIC UNIVERSITY" (MOSCOW POLYTECH)

Direction of training: 38.03.02 "Management"

EP (educational program): "Business Process Management"

Form of study: full-time, part-time

Type of professional activity: organizational and managerial, information and analytical, entrepreneurial

Department: "Management"

### **VALUATION FUND**

### BY DISCIPLINE

### "Organization and conduct of research in management"

Composition: 1. Passport of the fund of appraisal funds

2. Description of evaluation tools

Compiled by:

Art. teacher Co.shel I.S.

Moscow, 2022

### INDICATOR OF THE LEVEL OF FORMATION OF COMPETENCES

### Organization and conduct of research in management

GEF VO 38.03.02 "MANAGEMENT"

In the process of mastering this discipline, the student forms and demonstrates the following

compete	ncies:				
COMPETENCES		List of components	Competence	Assessment	Degrees of levels of development of
INDEX FORMULATION			formation	Tool Form**	competencies
			technology		
			lecture,	DS, UO, E	A basic level of
			independent work,		- has the skills to work with regulatory
			seminars		documentation and methods for assessing the
	Capable of gathering				financial position of the enterprise, the profitability
	information about business				of projects, the degree of risk
PC-5	problems and identifying				
	business opportunities in the				Enhanced level
	organization				- has the skills to work with regulatory
					documentation and methods for assessing financial
					The student is able to apply these skills in new non-
					standard situations (when analyzing emerging risks).

### List of assessment tools by discipline

### Organization and conduct of research in management

OS numbe r	Name of the evaluation tool	Brief description of the evaluation tool	Presentation of the evaluation tool in the FOS
one	Report, message (DS)	The product of the student's independent work, which is a public performance on the presentation of the results of solving a specific educational, practical, educational, research or scientific topic	Topics of reports, messages
2	Oral interview interview, (PO)	A means of control, organized as a special conversation between a teacher and a student on topics related to the discipline being studied, and designed to ascertain the amount of knowledge of the student in a particular section of the topic, problem, etc.	Questions on topics / sections of the discipline
3	Exam (E)	The final form of knowledge assessment. In higher education institutions are held during the session.	Questions for the exam

## Questions for the exam in the discipline "Organization and conduct of research in management" (formation of competence PC-5)

- 1. State policy in terms of scientific research. Priority directions for the development of fundamental research.
- 2. Engineering creativity, its features.
- 3. Methods for solving technical problems. Trial and error method.
- 4. General information about scientific research. Characteristic features of modern science.
- 5. General information about scientific research. Aims and methods of scientific research.
- 6. Overcoming inertia of thinking. Brainstorm. Stages and rules of brainstorming.
- 7. Overcoming inertia of thinking. Method of morphological analysis.
- 8. General information about scientific research. System approach to the development of science.
- 9. Choice of research topic. Steps for choosing a topic.
- 10. Sequence of R&D implementation on the example of applied R&D performance.
- 11. Theoretical and experimental studies. Types of experimental studies.
- 12. Structural elements of the R&D report.
- 13. Accumulation of scientific information.
- 14. Feasibility study for research. Economical effect.
- 15.Information and patent search. The structure of the UDC.

- 16.Stages of experimental research, plan-program of the experiment. Graphical representation of the results of the experiment.
- 17. Choice of methods of processing and analysis of experimental data.
- 18. Approximation of experimental data.
- 19. Analysis of the results of the experiment.
- 20. Registration of results of research works.
- 21. Rules for presentation of materials of scientific articles and reports. Citation rules.

#### Exam ticket form

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER EDUCATION
"MOSCOW POLYTECHNICAL UNIVERSITY"

(MOSCOW POLYTECH)

Graduate School of Printing and Media Industry

Faculty of Economics and Management	ment
EXAMINATION TIC	CKET No. 1.
<ol> <li>Question assessing competencePC-5.</li> <li>Competency QuestionPC-5</li> </ol>	
Approved at the meeting of the department ""	2022, protocol No
Head Department of "Management"/A	denina E.E./

# Topics of reports/messages by discipline "Organization and conduct of research in management" (formation of competencePC-5)

- 1. What are the goals and objectives of science?
- 2. Give a classification of sciences.
- 3. Give the concept of fundamental, applied and exploratory research.
- 4. Expand the content of the problem, hypothesis and theory as structural components of theoretical knowledge.
- 5. Expand the content of the concept, category, law, concept, axiom, principles as structural components of the theory of knowledge.
- 6. List the stages of research work and give a general description of each of them.
- 7. What is the methodology of scientific research?

- 8. List the general scientific methods of scientific research and give a general description of each of them.
- 9. Name the special methods of scientific research, determine their significance and necessity.
- 10. What is a statistical summary? Define her tasks.
- 11. Name the types of groupings depending on their goals.
- 12. Define the term "correlation".
- 13. What correlations are there in social production and what role do they play in studying the relationship between economic phenomena and processes?

### **Report Evaluation Criteria**

N	Criterion	Grade								
o.		ex.	choir.	satisfactory	unsatisfactory					
o n e	Report Structure	The report contains semantic parts, balanced in volume	The report contains three semantic parts, unbalanced in volume	One of the semantic parts of the report is missing	The report does not trace the presence of semantic parts					
2	Content of the report	The content reflects the essence of the problem under consideration and the main results obtained.	The content does not fully reflect the essence of the problem under consideration or the main results obtained.	The content does not fully reflect the essence of the problem under consideration and the main results obtained.	The content does not reflect the essence of the problem under consideration or the main results obtained.					
3	Ownership of the material	The student fully owns the material presented, is oriented in the problem, freely answers questions	The student owns the material presented, is oriented in the problem, finds it difficult to answer some questions	The student is not fluent enough in the material presented, poorly oriented in the problem	The student does not own the material presented, poorly oriented in the problem					
f o u r	Relevance to the topic	The presented material is fully consistent with the stated topic.	The material presented contains elements that are not relevant to the topic.	The material presented contains a large number of elements that are not related to the topic.	The material presented is slightly relevant to the topic.					

# Topics of oral survey by discipline "Organization and conduct of research in management" (formation of competencePC-5)

- 1. What federal law of the Russian Federation regulates relations between the subjects of scientific and scientific and technical activities, authorities and consumers of scientific products?
- 2. Who organizes, manages and performs research work?
- 3. Tell us about the organizational structure of science in Russia.
- 4. What is the main goal of the Russian Academy of Sciences.

- 5. How is the training and certification of scientific and pedagogical personnel in the Russian Federation.
- 6. What scientific degrees and scientific titles have been introduced in the Russian Federation?
- 7. What qualities are needed for highly qualified specialists?
- 8. Purpose and main tasks of students' scientific work.
- 9. What is the difference between the form of performing educational and research work and research work?
- 10.Define the term "scientific and technical potential".
- 11.Expand the content of the scientific and technical potential and list its components.
- 12. Give a general description of the main components of the scientific and technical potential.
- 13. Sources of scientific information and their classification
- 14. Features of scientific work and ethics of scientific work
- 15. The world around and "economic man".
- 16. Scientific support for the structural restructuring of the Russian economy
- 17. Formation of an economy operating on a modern technological base.
- 18. Concept, essence and classification of economic science.
- 19. Scientific thinking as a subject of study of logic.
- 20. Fundamentals of the methodology of scientific research in economics.
- 21. The problem of scientific research and its relevance.
- 22. Purpose and objectives, hypothesis and novelty of scientific research.
- 23. Fundamentals of planning scientific research work.
- 24. Efficiency of using new knowledge and achievements of science and technology.
- 25. Classification of scientific research methods.
- 26. Methods of empirical research.
- 27. Methods of theoretical research.
- 28. The method of ascent from the abstract to the concrete.
- 29. formalization method.
- 30. Idealization as a method of theoretical research.
- 31.axiomatic method.
- 32.General scientific research methods: abstraction, analysis, synthesis, analogy, induction, deduction, abduction, modeling, historical and logical method, graph method.
- 33. Methods for substantiating research topics.
- 34. Scientific directions, problems and topics of research.
- 35. Significance, as the main criterion of the topic
- 36. Economic efficiency of the topic.
- 37. Expertevaluation of the research topic.
- 38. Feasibility study for research.
- 39. Compound feasibility study.
- 40. Potential economic effect for the period of application of the R&D results.
- 41. Basic concepts: problem, subject of study, object of study, hypothesis, research methods.

- 42. What are the stages in scientific activity?
- 43.Is it possible to single out the most important among the stages of scientific activity? Explain why.
- 44. Definition of the problem, subject and object of research.
- 45. Studying the literature on the problem, clarifying the basic concepts, a preliminary description of the subject of research and the final title of the work.
- 46. What is the essence of the stage of collecting factual material?
- 47. Formulation of the purpose, objectives and hypotheses of the study. Why is it necessary to formulate the purpose, objectives and hypotheses of the study?
- 48. Choice of research methods.
- 49. Processing of research results and their interpretation
- 50. Methods of statistical analysis of experimental data, the purpose of these methods.
- 51. Division of statistical methods into primary and secondary.
- 52. The main indicators obtained as a result of the primary processing of experimental data.
- 53. Calculation of the arithmetic mean.
- 54. Definition of variance.
- 55. Establishing an approximate distribution of data.
- 56. Definition of fashion.
- 57. Characteristic of the normal distribution.
- 58. Calculation of intervals.
- 59. Types of tables and their construction.
- 60. Graphical representation of experimental data.
- 61. Histograms and their application in practice.
- 62. Statistical estimates of distribution parameters.
- 63. The requirements that the evaluated parameters must satisfy.
- 64. Key concepts: general mean, sample mean general variance, general standard deviation, sample variance, sample standard deviation, mode, median, range of variation, coefficient of variation.
- 65. Point and interval estimates.
- $66. Reliability (confidence\ probability estimates$
- 67. Confidential interval
- 68. Statistical hypotheses
- 69. Structural elements of an R&D report
- 70. Types of research work of students. Types of abstracts. Abstract structure.

### Criteria for assessing the oral survey (interview)

The grade "excellent" is given to the student if the student is oriented in the theoretical material; has an idea of the main approaches to the material presented; knows the definitions of the main theoretical concepts of the topic being presented, knows how to apply theoretical information to analyze practical material, basically

demonstrates a willingness to apply theoretical knowledge in practice and mastering most of the indicators of formed competencies.

The grade "good" is given to the student if the student is oriented in the theoretical material; has an idea about the main approaches to the material presented, but finds it difficult to answer some questions; knows the definitions of the main theoretical concepts of the topic being presented, but does not fully reflect the essence of the problem under consideration, basically knows how to apply theoretical information to analyze practical material, basically demonstrates a willingness to apply theoretical knowledge in practice and mastering most of the indicators of formed competencies.

The grade "satisfactory" is given to the student if insufficient knowledge of the theoretical material, the basic concepts of the topic being presented is shown, not always with the correct and necessary use of special terms, concepts and categories; the analysis of the practical material was fuzzy.

An "unsatisfactory" grade is given in cases where the conditions for a "satisfactory" grade are not met.